

CLAIMS:

1. A method of positioning an object at a required position on an object table in a lithographic projection apparatus, comprising:
- a radiation system for supplying a projection beam of radiation;
 - a first object table for holding patterning means;
 - a second object table for holding a substrate; and
 - a projection system for projecting the patterned beam onto a target portion of the substrate, characterised in that said method comprises the following steps:
- a first placement step in which the object is placed at a first position on the table;
 - a measuring step in which a displacement between the first position of the object and the required position of the object is determined;
 - a removing step in which the object is released and removed from the table;
 - a moving step in which the object and the table are moved relatively to each other by substantially the said displacement, in a direction substantially parallel to the plane of the table; and
 - a second placement step in which the object is placed at substantially the required position on the table.
2. A method according to claim 1, wherein said measuring step comprises aligning a first mark on the object to a second, reference mark.
3. A method according to claim 2, wherein said second mark is located on the first or the second object table.
4. A method according to claim 1 or 2, wherein the patterning means comprises a mask held by the first object table.
5. A method according to claim 4, wherein said second mark is located on the mask or the substrate.

6. A method according to claim 1, wherein said measuring step is accomplished using imaging means to determine the displacement between the first position of the object and the required position of the object.

5 7. A method according to any of the proceeding claims, wherein said measuring step comprises processing information about the first position of the object, together with information regarding the required position of the object, in calculation means, to determine said displacement.

10 8. A method according to claim 1, wherein said displacement deviation is rotational around an axis perpendicular to the plane of the table.

9. A method according to claim 1, wherein said object is held in place using a vacuum generating surface.

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10. A method according to any of the proceeding claims wherein the radiation system comprises a radiation source.

11. A method of positioning a substrate at a required position on a substrate table, characterised in that said method comprises the following steps:

20 a first placement step in which the substrate is placed at a first position on the table;

a measuring step in which a displacement between the first position of the substrate and the required position of the substrate is determined;

25 a removing step in which the substrate is released and removed from the table;

a moving step in which the substrate and the table are moved relatively to each other by substantially the said displacement, in a direction substantially parallel to the plane of the table; and

30 a second placement step in which the substrate is placed at substantially the required position on the table.

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- 5 12. A device manufacturing method comprising the steps of:
- (a) providing a second object table with a substrate which is at least partially covered by a layer of radiation-sensitive material;
- (b) using patterning means to endow the projection beam with a pattern in its cross-section; and
- (c) projecting the patterned beam onto a target portion of the layer of radiation-sensitive material, characterised in that, prior to step (c), the following actions are performed:
- 10 a first placement step in which the substrate is placed at a first position on the second object table;
- a measuring step in which a displacement between the first position of the substrate and the required position of the substrate is determined;
- a removing step in which the substrate is released and removed from the second
- 15 object table;
- a moving step in which the substrate and the second object table are moved relatively to each other by substantially the said displacement, in a direction substantially parallel to the plane of the second object table and
- a second placement step in which the substrate is placed at substantially the
- 20 required position on the second object table.
13. A device manufactured in accordance with a method according to claim 12.

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